

LISTING OF CLAIMS

Please amend the claims as follows:

1-9. (Withdrawn)

10. (Currently amended) A multilayer (~~compressive~~) compressive seal having superior thermal cycling stability for sealing in high temperature devices, the seal comprising:

~~a sealing (gasket) member defining first and second opposing surfaces; disposed between a first and a second compliant interlayer;~~
~~a first compliant interlayer disposed adjacent said first surface;~~
~~a second compliant interlayer disposed adjacent said second surface; and,~~
~~wherein said sealing member is infiltrated with at least one glass or melt forming material whereby a plurality of spaces within said member are effectively sealed and low effective leak rates are achieved.~~

wherein said sealing member comprises a mica paper having a plurality of mica members therein infiltrated with at least one glass forming material sealing a plurality of leak paths between said plurality of mica members within said sealing member at an operating temperature of said compressive seal; and

wherein said sealing member provides a sufficiently low effective leak rate in said compressive seal effectively sealing said compressive seal at said operating temperature.

11. (Currently amended) The seal according to claim 10, wherein ~~leak rates are less than said leak rate in said seal is less than about 1E-02 sccm/cm at operating temperatures in the range from about 600 °C to about 850 °C.~~

12. (Currently amended) The seal in accordance with claim 10 [[,]] wherein ~~the~~

sealing (gasket) member said plurality of mica members within said mica paper of said sealing member comprises a mica selected from the group consisting of Phlogopite, Muscovite, Biotite, Fuchsite, Lepidolite, ~~and Zinnwaldite paper, flakes, filaments, fragments, particles, and combinations thereof.~~

13. (Currently amended) The seal in accordance with claim 10 [L] wherein at least one of said first and second compliant interlayers comprises a member selected from the group consisting of a glass, a glass-ceramic, a mica glass-ceramic, a phase-separated glass, a glass composite, a cermet, a metal, a metal foil, a metal alloy, a metal composite, a mica-glass composite, ~~or and~~ combinations thereof.

14. (Currently amended) The seal in accordance with claim 10 [L] wherein said sealing member comprises a mica:glass composite having a mica-based concentration up to about 50% by volume.

15. (Currently amended) The seal in accordance with claim 10 [L] wherein said sealing member comprises a mica:glass composite having 90% by volume of a mica based material and 10% by volume of a glass forming material.

16. (Currently amended) The seal in accordance with claim 10 [L] wherein said sealing member comprises a mica:glass composite mixture of 80% by volume of a mica-based material and 20% by volume of a glass forming material.

17. (Currently amended) The seal in accordance with claim 15 [L] wherein said glass forming material comprises a G-18 barium calcium aluminum borosilicate glass.

18. (Currently amended) The seal in accordance with claim 16 [L] wherein said glass forming material comprises a G-18 barium calcium aluminum borosilicate glass.

19 - 68 (Withdrawn)

69. (New) The seal in accordance with claim 10, wherein said plurality of mica members within said mica paper comprise mica of a form selected from the group consisting of flakes, filaments, fragments, particles, and combinations thereof.

70. (New) The seal in accordance with Claim 10, wherein said mica paper infiltrated with said at least one glass forming material forms a mica-glass composite with said plurality of mica members within said sealing member at said operating temperature of said seal.